



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

## BOOK REVIEWS

### METHODS AND PRINCIPLES

*Africa and the Discovery of America.* Volume I. LEO WIENER. Philadelphia: Innes & Sons, 1920. 290 pp. 19 pls.

This unquestionably interesting but in many ways unfortunate volume presents the reviewer with something of a puzzle, for a careful reading leaves one in doubt as to whether the author really intended his work to be taken as a serious contribution, or has attempted to perpetrate a rather elaborate jest. For while he has brought together material of much interest and arrives at startling conclusions, there is, especially in his later chapters, so much in the way of unsubstantiated assumption, hasty correlation, false reasoning, misunderstanding and misrepresentation of sources and evident lack of familiarity with the results of American archaeology that it is difficult to take the volume seriously.

Professor Wiener is concerned to prove two main theses: (1) the unreliability not to say "forgery" of much of Columbus' and other early writers' accounts of the New World, together with the fact (?) that the Indian words given in these accounts are not Indian at all, and (2) the introduction from Africa during the early sixteenth century or before, either by Europeans or Negroes, of yams, sweet potatoes, manioc and peanuts, together with tobacco and the practice of smoking—all of these having hitherto been generally regarded as of native American origin, or at least of long use in America prior to the Discovery.

The argument for the first of these theses is ingenious and in many respects plausible. Columbus in sailing westward "never for a moment doubted" that "he would reach China, Japan and the islands of the Indian Ocean, and he carried with him mappamondos in which that part of the world was given in the extreme East." Therefore, when he arrived at the Antilles he attempted to identify the islands which he saw with those shown on his maps, and the "Indian" names which he gave for these lands were merely misreadings and misspellings of the names on the Catalan, Fra Mauro and de Virga maps. Some of these suggested origins are, if satisfactory native etymologies are really lacking, very plausible; others are much less so, and some in spite of their ingenious character do not carry conviction and indeed in some cases rest upon

misstatements. Etymology is a fascinating but precarious pastime, and if we select one of a series of variants, assume a certain amount of misspelling or misreading together with phonetic equivalences for which there is no proof, we may achieve almost anything!

In one at least of his attempts to prove the "atrocious forgery" of much of Columbus' writings and those of Ramon Pane, Professor Wiener shows a readiness to seek for and accept far-fetched explanations, a tendency which becomes more noticeable in his later chapters. Thus he rejects as a lie the story told by Columbus of fishing by the aid of the remora or sucking-fish, and declares it to have been derived from Odoric of Pordenone's account of cormorant fishing in eastern China. A little investigation would have shown that improbable as it may seem, there is no good reason to brand it as a pure invention or plagiarism, for precisely this same method has been and still is employed in Melanesia and its practicability has recently been demonstrated by tests in New York!

In his third chapter, the author deals at length with the question of tobacco and the custom of smoking, attempting to prove that tobacco was unknown in the New World until the plant and its name and use were introduced primarily by the Negroes, who were brought over as slaves during the first half of the sixteenth century. There are few things which have been regarded as more typically American than tobacco and its use, and one must admire the courage of the author in declaring this generally accepted belief to be wholly wrong. But a careful reading of the chapter in question leads only to amazement that anyone could, without the slightest regard for the facts of American archaeology and ethnology (with whose results in the last generation Professor Wiener appears to be wholly unacquainted) put forward so revolutionary a theory. The main steps in the argument seem to be (1) that tobacco and the practice of smoking were known to the West African Negroes prior to the end of the fifteenth century; (2) that the earlier explorers of the New World nowhere found tobacco in use, (3) that the words for tobacco, pipe, etc., in American Indian languages are in the main derived from the Mande words for the same, which go back ultimately to Arabic originals, and (4) that since all pipes must thus in the New World be post-Columbian, all archaeological remains with which they are associated are also post-Columbian.

As the earliest certain record the author has been able to discover referring to the use of tobacco in Africa is at the end of the sixteenth century, it is obviously incumbent on him, if he is to prove his theory, to find indirect evidence of its earlier presence. He does so in the names

now used for tobacco by the Sudanese and Mande tribes, which names he attempts to derive from the Arabic "tubbaq" an aromatic plant whose leaves were used in Arabia for dressing wounds. Now tobacco being as he says (although without any satisfactory or valid evidence<sup>1</sup>) native in Africa, "took the place of the plants which were exotics" (*i.e.*, the original "tubbaq" of Arabia), and since "the magic Mussulman pharmacopoea" utilized "aromatic plants for burning" (*i.e.*, incensing) "there arose in Africa the habit of smoking." As it will be found on examination that nearly every stage in this "argument" rests on unverified assumptions, it is to say the least, hardly convincing. But this is the whole case for the African use of tobacco in smoking prior to the discovery of America!

The second stage in the argument, *viz.*, that we have no early accounts of tobacco or the use of smoking in America is equally unconvincing. He points out what is indeed a puzzling fact, that Columbus in his first voyage makes but one very uncertain reference to smoking, and that in the earlier accounts of Florida its use is not mentioned. On the other hand he minimizes and quite misunderstands (as well as mistranslates!) the evidence afforded by Sahagun and Bernal Diaz. He ridicules Oviedo's earlier errors in confusing the Antillean custom of inhaling cohoba (*Piptadenia peregrina*) with the smoking of tobacco, and denies *in toto* the former practice with its use of the bifurcated snuffing tube; a denial which, in view of Uhle's and Safford's careful studies, is without force. He also points out that the first description of smoking in Brazil dates only from 1555, and that Thevet then states that tobacco is called "petun." This affords an opportunity for one of the pieces of pure speculation in the philological field with which the volume abounds. For this word, widely diffused in the languages of the Tupi-Guarani stock, is, says Professor Wiener, derived from the Portuguese "betume" in turn derived from "bitumen." As the Arabic "tubbaq" was originally used to refer to the glutinous qualities of the leaves of the plant used in Arabia for dressing wounds, and later was transferred to tobacco which the Negroes learned to smoke, and since Arabic influence in medicine was not yet extinct in Portugal at the end of the fifteenth century, *therefore* "betume" since it also referred to a viscous substance "*must*" have acquired the same various meanings (*i.e.*, tobacco) as "tubbaq,"

---

<sup>1</sup> Of the two references given to prove that tobacco is native in Africa, one does not even refer to the subject, while the other clearly indicates the exact opposite to what Prof. Wiener says. Similar examples of gross carelessness or direct misrepresentation abound.

and it was this word which, with the plant itself, had been taken by the Portuguese pilot of Pigafetta to Brazil more than thirty-five years before! Comment seems superfluous.

It is in connection with Cartier's account of smoking among the St. Lawrence tribes, however, that the author achieves still more amazing results. Being unable to deny Cartier's definite description and as no prior Negro influence here could, even by Professor Wiener, be assumed, it is necessary for him to show that the practice among the Iroquoian tribes at Montreal and Quebec was of recent introduction. His "evidence" for this rests in part on direct misquotations and misunderstandings, and in part on a failure to comprehend the character of Indian life and the conditions prevailing in eastern North America in the early sixteenth century; and includes a most absurd attempt at derivation. Professor Wiener states (p. 137) that Cartier "mentions figs, cloves and cinnamon, oranges, almonds and apples as known to the Indians and possessing Indian names." Later (p. 144) he adds "prunes" to this list. He first suggests (pp. 137, 145) that the Hurons knew of these tropical products through contact with the Breton fishermen who had preceded Cartier on the Canadian coast. Later (p. 146) he adopts the theory that the Hurons "were before the middle of the sixteenth century in some relation, apparently commercial, with Europeans on the Gulf of Mexico," and there obtained not only "oranges, cinnamon and cloves" but also tobacco for the first time. Further proof of this extraordinary theory is found in the supposed derivation of the Micmac, Abnaki and Natick words for tobacco from the Mande Negro "taba," while the Huron term is declared to be derived from the Arawak and Carib "iouli," which in turn goes back to a Mandingo form "duli" (pp. 184-5).

One is tempted to apply to this the term "balderdash" which the author uses in speaking of Columbus' writings, and while the whole is hardly worthy of serious comment, yet as it is typical of much of the author's whole method, it may be worth while to discuss it briefly. Professor Wiener in the first place directly misquotes his sources. Cartier does *not* say that the Indians had names for all of the seven articles which he enumerates, and he gives the names only for four of them, viz., figs, plums ("prunes" in English is not the equivalent of "prunes" in French!) cloves and cinnamon. The use of "apples" in Cartier's text is, as Professor Wiener failed to note, due to a misprint of "pommes" for "prunes." In the second place, the author accepts without the slightest apparent investigation, the identification of oranges, figs, etc., with Old World fruits. What, however, may reasonably be inferred

from Cartier's statements? Obviously that the Indians, questioned in a language which they did not understand in regard to the products of their country, or asked for names of Old World products, gave in reply the names of native fruits which the French understood to be "oranges," "figs," etc., or which resembled the Old World products shown. This is a common experience and examples may be found in many parts of the world. Plums of course were native, the "oranges" may well have been the Osage orange or some variety of *Crataegus*, and "almonds" could have been any one of several varieties of nuts. In regard to "figs," it must be remembered that Cartier himself confused them with plums, and gives the same name for both. They may, however, be a reference to the "May Apple," called locally, "Indian Fig," or perhaps to a variety of *Opuntia*. There remain the "cloves" and "cinnamon." In regard to the former, it is to be noted that they are referred to in two of the three manuscripts as "so-called cloves," obviously indicating that they resembled but were not true cloves. It has been suggested that sassafras may have been what was meant by the word for "cinnamon." Under any circumstances, however, whether these suggested identifications are correct or not, there is a very weak place in Professor Wiener's whole argument. For, if tobacco, with its name, was imported to Ontario from the Gulf Coast, why do we not also find the names for these imported tropical fruits and spices *also* derived from Old World sources? What is sauce for the goose is sauce for the gander!

The theory that the Iroquoian tribes north of the St. Lawrence were, in the early sixteenth century, in direct trade relations with the Gulf of Mexico could, quite apart from its inherent improbability on account of the distances involved, only be imagined by one quite unaware of the character of Indian trade and of the political conditions among the eastern tribes at this time. One of the "proofs" of this supposed trade which is adduced shows to what lengths the author is willing to go in the way of, shall we say "fanciful," etymologies. On page 145ff. it is contended that the carriers of this trade in tobacco and tropical fruits were the Algonkian people called by Sagard (and by him alone!) the Epicerinys, whose name is derived by Professor Wiener with all apparent seriousness from the French "épicerie" (spices). It is hardly necessary to point out that these "bringers of spices" are the Nipissirini or Nipissings of the lake of that name in northern Ontario. Quite apart from its validity on the philological side, it may be wondered why the presence of assumed Mande words for tobacco among the Algonkian tribes of the Maritime Provinces and northeastern New England should be adduced as evidence for an overland trade by the Hurons with the Gulf of Mexico!

Space is lacking to point out all the vagaries which fill the pages of this extraordinary chapter. These range from misstatements, such as when (p. 189) it is said that Alarcon in 1540 described Indians of the Northwest (sic) as "addicted to smoking, carrying the tobacco and the pipe in a bag tied to their arms," to the quite incomprehensible attempt to make the Mexican "chapopotli" (which was by the author's own statements, a bituminous, reddish-purple, aromatic material mixed with other substances in the filling of cigarettes) equivalent to meerschaum (pp. 149, 181-184); from the credulity which accepts without question Squier's identification of "manatee" and "toucan" pipes in the Ohio mounds (p. 168) to the assurance which, in utter disregard of all archaeological data, declares the pottery heads of San Juan Teotihuacan "negroid" and hence post-Columbian (p. 174); from the theory that the face tatu pattern shown on Arkansas pottery vessels is a direct copy of Mande cicatrices (p. 174) to the "amazing similarity" of African and North American Indian pipes. Professor Wiener's climax, however, is reached at the close of the chapter (pp. 189-190) in his discussion of the mounds, where he declares that "the very last vestige of a pre-Columbian existence of the mounds disappears" and asserts that all of the mounds were "fortifications which the traders, whether Whites or Indians, erected all the way up from Florida to the Huron country, in order to vouchsafe the trade which was established in the beginning of the sixteenth century . . . between Canada and the south." Before so simple, so comprehensive, so grandiose a conception as this, one can only stand in awe!

Much of the chapter on Bread Roots is vitiated by the same faulty reasoning and acceptance of unverified assumptions as facts, the same misrepresentations and contradictions, the same total neglect of important historical and all archaeological data. He shows, and shows clearly, that there is much confusion in regard to the yam, sweet-potato, manioc and peanut and their names in the accounts of the writers of the early sixteenth century, and that many of the names apparently have a distribution far beyond linguistic stock lines. He brings considerable evidence to show that some of these names may have been of Old World origin; but all of this does not entitle him to insist that the plants themselves were also foreign! His inconsistency here is very apparent, for while in the case of the words for monkey, he admits and indeed tries to prove "the rapidity with which foreign words were adopted by the natives even for native commodities, if these formed a subject of commerce" (p. 206), yet in the parallel case of manioc (whose commercial use he is

at pains to emphasize, p. 214) this possibility is spurned, and because the name for manioc may be of foreign origin, the plant itself *must* be also. Contradiction has no terrors for the author, so that we find (pp. 238-239) that "there cannot be the slightest doubt" but that the sweet-potato was introduced into Asia and the East Indies from the Congo by the Spanish and Portuguese voyagers of the sixteenth century, while later (p. 261) he says that "it can be proved, beyond any possibility of cavil, that the sweet-potato was cultivated in Asia before the discovery of America." That the yam and sweet-potato were both widely cultivated in the Polynesian area prior to the first appearance of Europeans in the Pacific is not mentioned in Professor Wiener's whole argument, and the fact that actual specimens of sweet-potatoes and peanuts are found in pre-historic Peruvian tombs and are represented, together with manioc apparently, on Peruvian pottery of similar age seems quite unknown to the learned author, who triumphantly proves their non-existence on linguistic grounds!

Space is lacking to discuss adequately the purely philological portions of the volume. In general it may be said that the author depends in the main solely on similarities in sound, and quite disregards all questions of phonetic laws or the principles of word composition—a method whose great untrustworthiness linguistic students have long recognized. One or two examples of the author's methods will suffice to show the quality of his scholarship. Referring (p. 143) to the terms *uppowoc*, *uhpooc*, *apooke* used for tobacco in Virginia, he says: "One need only look at the juxtaposition of *tobacco-apooke* to convince oneself that the second is an apocopation of the first, the *t* appearing as a pronominal suffix" (sic). Further explanation of this pronominal "suffix" would doubtless interest students of Algonkian languages, but quite apart from this, the whole statement, if it means anything, would seem to imply that the word *tobacco* was derived from this Virginia Indian word *apooke*! Elsewhere it is always *taba*, *tawa* from which the American Indian words are supposed to be derived, and not from *tobacco*! Again, as proof of the Negro origin of Indian words used by Ramon Pane, Professor Wiener cites (p. 160) the Indian word *cobo* "a sea snail" and correlates it with the Malinke *kobo* "nom d'un insecte coléoptère"! To other minds the association is hardly obvious!

It is neither necessary nor profitable to bring forward further criticism. To point out all the errors of fact and reasoning, correct all the misunderstandings, misrepresentations and mistranslations, and refute the conclusions would require a volume in itself. Professor Wiener has



rendered students of aboriginal American culture a distinct service in showing that there is much confusion in the accounts of the early writers, that a wide diffusion of certain plant names seems to have occurred during the century after the Discovery, and that African influence may have been something of a factor in it all. That, however, the plants themselves were of foreign origin and were unknown in America until introduced in the early sixteenth century, he has, in the reviewer's opinion, quite failed to prove. It is clear that there is a problem here which demands a scientific and scholarly study, but this the volume under discussion cannot be said to supply.

R. B. DIXON

*Vertebrate Zoölogy.* HORATIO HACKETT NEWMAN, Professor of Zoölogy and Embryology in the University of Chicago. The MacMillan Company: New York, 1920. Pp. xiii + 432, 217 figs.

A textbook of vertebrate zoölogy or comparative anatomy is necessarily largely a compilation. Its value is determined by the author's choice of material and authorities as well as his presentation of the subject. Professor Newman has been successful in a wise selection of material from the best books on this subject. The greater part of the data is derived from such authorities as Brehm, Cope, Flower, Lydekker, Gadow, Gegenbauer, Gregory, Haswell, Hertwig, Huxley, Jordan, Keibel, Kingsley, Lillie, Lull, Mall, Mathew, Minot, Osborn, Parker, Patten, Scott, Weber, Wiedersheim, Wilder, and Williston. This list is sufficient to show that the book contains well-balanced proportions of embryology, paleontology, comparative anatomy, and phylogeny. The first three subjects are used to good advantage in establishing phylogenetic relationships and tiresome details that do not serve this end are omitted.

A feature of the book is the introduction and application of Child's axial gradient conception in the interpretation of vertebrate structures. There are three axes of the vertebrate body: a primary antero-posterior axis, a secondary dorso-ventral axis, and a tertiary bilateral axis. The generalization is that the organs of highest dynamic activity are at the apical ends and those of least dynamic activity are at the basal ends of these axes.

The book is adequately illustrated with 217 text-figures. Although not one of these figures is original, the author's contribution here has been an important one. He has regrouped and combined figures from other authors to very good advantage.

Four pages are devoted to man. They are totally inadequate and